



## Public health and economic impact of dampness and mold

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### Abstract:

The public health risk and economic impact of dampness and mold exposures was assessed using current asthma as a health endpoint. Individual risk of current asthma from exposure to dampness and mold in homes from W.J. Fisk, Q. Lei-Gomez & M.J. Mendell [(2007) Indoor Air, [corrected] 17, 284-296], and [corrected] asthma risks calculated from additional studies that reported the prevalence of dampness and mold in homes were used to estimate the proportion of US current asthma cases that are attributable to dampness and mold exposure at 21% (95% confidence interval 12-29%). An examination of the literature covering dampness and mold in schools, offices, and institutional buildings, which is summarized in the Appendix, suggests that risks from exposure in these buildings are similar to risks from exposures in homes. Of the 21.8 million people reported to have asthma in the USA, approximately 4.6 (2.7-6.3) million cases are estimated to be attributable to dampness and mold exposure in the home. Estimates of the national cost of asthma from two prior studies were updated to 2004 and used to estimate the economic impact of dampness and mold exposures. By applying the attributable fraction to the updated national annual cost of asthma, the national annual cost of asthma that is attributable to dampness and mold exposure in the home is estimated to be \$3.5 billion (\$2.1-4.8 billion). Analysis indicates that exposure to dampness and mold in buildings poses significant public health and economic risks in the USA. These findings are compatible with public policies and programs that help control moisture and mold in buildings. PRACTICAL IMPLICATIONS: There is a need to control moisture in both new and existing construction because of the significant health consequences that can result from dampness and mold. This paper demonstrates that dampness and mold in buildings is a significant public health problem with substantial economic impact.

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### Resource Description

#### Exposure :

weather or climate related pathway by which climate change affects health

Air Pollution, Indoor Environment, Meteorological Factors

**Air Pollution:** Allergens

#### Geographic Feature:

resource focuses on specific type of geography

# Climate Change and Human Health Literature Portal

None or Unspecified

## **Geographic Location:**

resource focuses on specific location

Global or Unspecified

## **Health Impact:**

specification of health effect or disease related to climate change exposure

Respiratory Effect

**Respiratory Effect:** Asthma, Upper Respiratory Allergy

## **Mitigation/Adaptation:**

mitigation or adaptation strategy is a focus of resource

Adaptation

## **Model/Methodology:**

type of model used or methodology development is a focus of resource

Cost/Economic

## **Resource Type:**

format or standard characteristic of resource

Research Article

## **Timescale:**

time period studied

Short-Term (

## **Vulnerability/Impact Assessment:**

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content